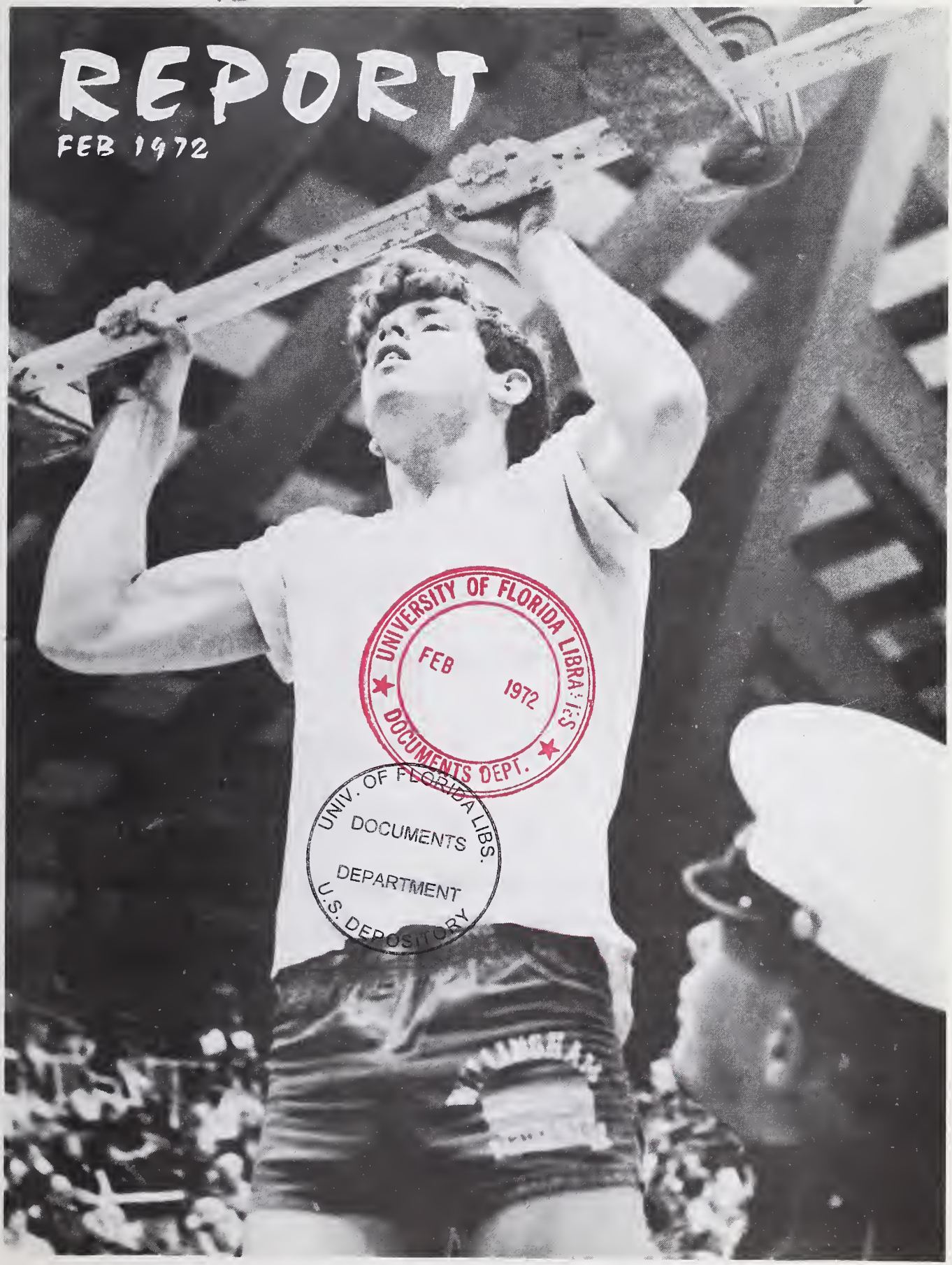
D1.41: 15/5

REPORT

FEB 1972



UNIVERSITY OF FLORIDA LIBRARIES
FEB 1972
DOCUMENTS DEPT.
UNIV. OF FLORIDA LIBS.
DOCUMENTS
DEPARTMENT
U.S. DEPOSITORY

Vol. #15, #5

REPORT MAGAZINE

HIGH SCHOOL NEWS SERVICE REPORT

Published monthly during the school year by the High School News Service, a Department of Defense activity located at Great Lakes, Ill., and distributed free of charge to high schools, colleges and universities requesting the service.

Purpose of the HSNS REPORT is to inform students, through counselors and advisors, of their responsibilities and opportunities in the Armed Forces of the United States of America. Any material appearing herein may be reprinted. Printed with appropriated funds in compliance with NAVEXOS P-35.

Use of funds for printing NAVSO P-2429 was approved by the Director of the Office of Management and Budget, Sept. 15, 1970.

EDITORIAL STAFF

Director

CAPT R. M. McCool.....USN

Deputy Director

CPT M. G. Munson.....USA

Senior Editor

MGySgt Duane Zabel .....USMC

Service Editors

CWO Robert Douville.....USCG
MGySgt Duane Zabel .....USMC
JOCM Edward Nelson.....USN
MSgt Charles LaCroix.....USAF
SSgt George Shuttleworth.....USA

Make-up Editor

SSgt George Shuttleworth.....USA

Circulation Manager

SSgt Clifford Shortridge .....USAF

February, 1972 Volume 15 Number 5

3 No margin for error

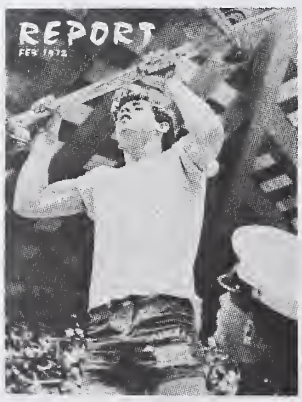
6 Tin Can Navy

8 Youth Physical Fitness Program

10 REFORGER

12 Boating Safety

14 MCJROTC



On the cover

FRONT: A high school student performs pull-ups under the watchful eye of a Marine sergeant.

BACK: MCJROTC students marking targets from subterranean pits.

No margin for error

From outside the gates of this massive Air Force installation in California, one might form the impression it is no different than any other in the Air Force.

Although activities are basically the same as other bases, the 3535th Navigator Training Wing at Mather Air Force Base is the sole source of Air Force navigators.

Since the beginning of time, man -- groping his way across trackless oceans and land masses -- has sought ways to plot his course of travel from one place to another. Some records of maps date as far back as 3800 B.C.

Modern navigation owes most of its upbringing to Portugal's Prince Henry. Born in 1394, he studied all information then available on travel and navigation and formed the world's first navigation school which inspired explorers for generations to come.

Still another influential piece of equipment was Sir Francis Drake's Portable Dial (circa 1569) which is a far cry from the modern and sophisticated navigation instruments used by the present-day navigator.

Since Henry's and Drake's time, many important methods of "finding the way" have been developed. These methods include: dead reckoning, radar and grid navigation, radio navigation, celestial navigation and LORAN (Long Range Aids to Navigation). All these methods are taught at Mather.

It is a challenge, both physical and mental, for the young Air Force officers who enter Mather's Undergraduate Navigator Training Program. Additionally, a few Air National Guard officers and others from foreign countries are included in the enrollment.

During the nine months of training each student receives 408 hours of academic instruction, 79 hours of ground trainer/simulator practice and 169 hours of military training. Their flight training portion includes 186 hours of actual flying time with another 144 hours set aside for preflight and post-flight briefings.

The student begins with the very basics of air navigation - dead reckoning. He learns to maintain an accurate record of time, speed direction and wind effect, using them to determine the aircraft's exact position without a reference to landmarks.

He first learns about Aerospace Physiology, the basic understanding about the physics of the atmosphere and the physiological effects of flight on the body. Later he experiences an altitude chamber flight that simulates the effects of high altitude flying.

This is where the student learns about hypoxia (the body's reaction to lack of oxygen). It doesn't come in any

particular color and size for easy identification. Every student has his own unique, though similar, physical reactions to the phenomenon.

During the life support systems instruction, the student is taught various parachute landing techniques to include four hours of parasailing. This closely approximates an actual jump from an aircraft, wet ditching drills and other survival training techniques.

Next he is ready to take up the study of the many navigational aids, map reading, radio, celestial navigation, radar, LORAN, pressure systems and polar navigation.

Now the student gets down to the job of being a navigator by learning about Aircraft and Navigation Equipment and Navigation Procedures. This includes use of maps and charts, plotting procedures, N-1 compass, periscopic sextant, driftmeter, automatic direction finder and radio.

Aircraft location is his business. The navigator has data ready at all times to give the position of his aircraft. The wind, the weather, the speed, the heading must all be taken into consideration -- there is no margin for error. The trained navigator can guide his aircraft between any two points, be they 100 miles, 1000 miles, hemispheres and even -- planets apart.

He also practices with training simulators to become acquainted with the instruments that will be used in actual flight. During this time he flies the first of 31 to 33 flight missions.

The student is now introduced to the aerodynamics of flight and to the electrical, hydraulic, fuel and pneumatic systems of the aircraft.

After seven 4-hour flight missions using a combination of map reading and radar, the student learns the celestial theory of navigation. This is done by using the celestial lines of position with relationship and location of stars and planets as methods of "fixing" his position, while on two 4-hour flying missions. This gives the student navigator a solid background for night celestial training that begins with star identification and requires four flight missions using celestial fixes as primary aids.

The overwater training flights comprise a major block of the student's training. There are five such flights, each a duration of 6-hours, using a combination of navigational aids including LORAN, pressure pattern, celestial and other primary aids.

The final academic phase is flight publications. Here the student learns the rules and regulations that govern air traffic control and aircraft movement. During this training he becomes acquainted with the airspace divisions and airways system in the United States and gains additional information about approach and departure procedures.

With the completion of a combined

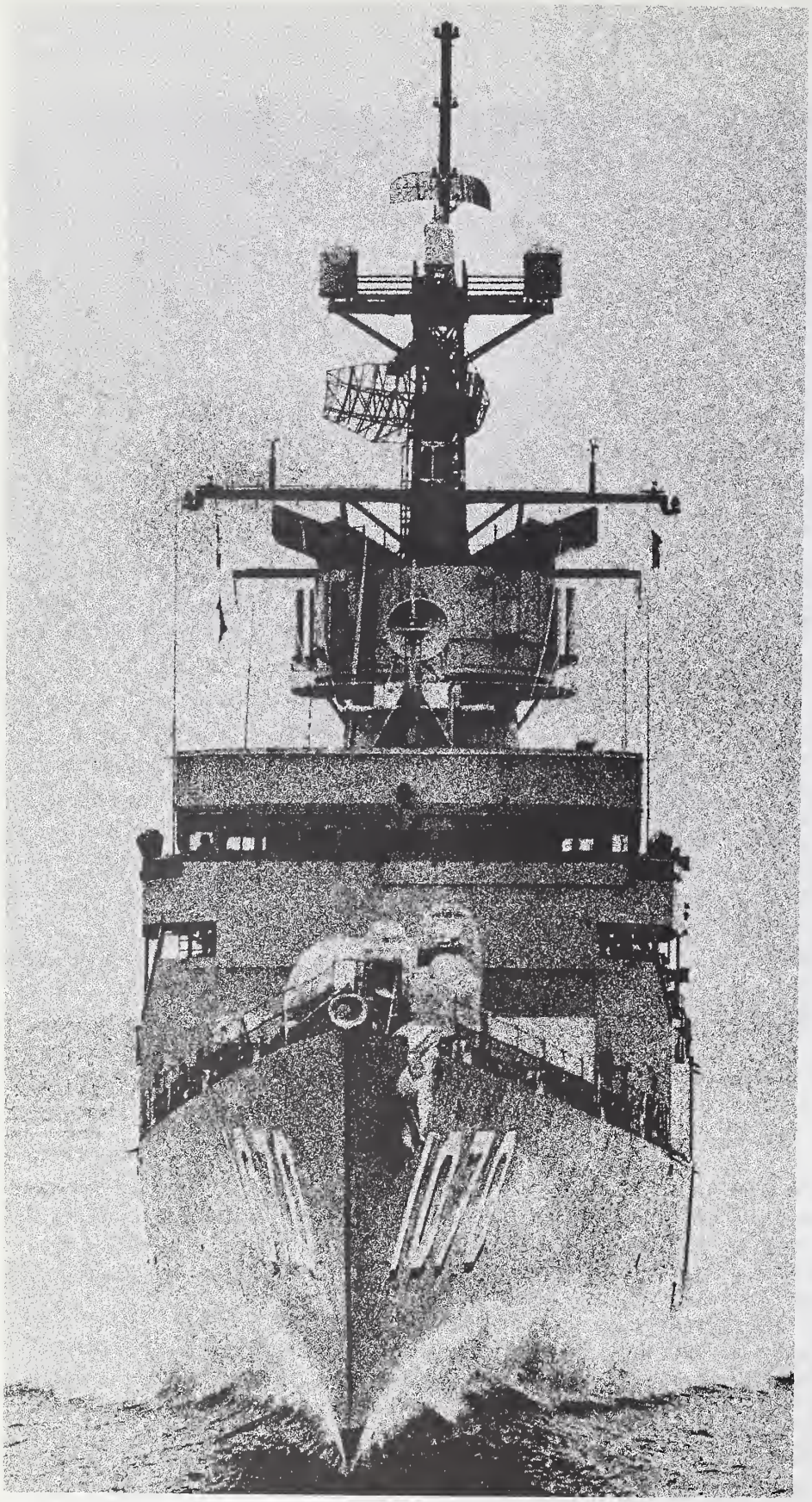
Navigation student parasailing via a 600 foot rope attached to a tow truck.

aids mission, the ultimate test of a students proficiency, training has ended for those students who will go on to navigator-bombardier training or electronic warfare officer training.

Those who will be going directly to operational units still must fly two "solo" missions. During these missions the students are on their own, planning the flights, briefing the pilots and navigating the aircraft. One of these requires the use of radios as the primary aid for navigation on airways and for monitoring instrument and visual approaches. The other is a solo overwater mission using all available navigation aids.

As the mariner of old, today's navigator has but one goal; know where you are -- where you are going -- at any time of the day or night.

Only the equipment has changed -- the man and the mission are the same.



"Give me a fast ship
for I intend to go into harm's way."

JOHN PAUL JONES

Tin Can Navy

More than a century and a half ago, Lord Nelson, chasing the phantom ship, Villeneuve, across the Atlantic, fiercely complained, "When I die, you will find this want of frigates graven upon my heart."

By World War II, the lifting sail of these fast, light ships had given way to the airplane for the primary service of reconnaissance, but complaints of Admirals were much the same. When at grips with the enemy on the sea, under the sea, or in the air, no Task Force Commander ever had enough destroyers.

Destroyers, call them what you will — "tin cans," "greyhounds," "DD's" — continue to be the backbone of the surface fleet. They were born out of necessity and from the start have always been in the center of action.

In 1898, Congress authorized construction of 16 destroyers to meet the threat of enemy torpedo boats. Twenty-two years later the danger of the enemy came from the submarine.

Following World War I experience with anti-submarine warfare, a "Destroyer Force" was created in the

Atlantic Fleet. Other destroyer units were dispatched to join the Pacific Fleet.

Destroyers continued to be the workhorse of the sea, through the Second World War and Korea. As the 1950's ended, there were some who thought that this hearty ship may have outlived its usefullness, and would not fit into the modern era of the missile, aircraft carrier and nuclear submarine. But those pessimists were overruled. Strategists saw the importance of the destroyer to the modern naval task force, seeking out the destroying submarines and protecting the aircraft carrier.

While others took leisure to speculate on the relative importance and future of the destroyer, destroyermen had time only to concern themselves with the job at hand, reacting immediately to "limited crises" the world over. During the time that saw a brief return of the battleship and of the brown-water Navy, the destroyer continued to be the most versatile vessel afloat.

During the past two decades of "Cold War," destroyermen were called upon to take their greyhounds on a moment's notice to hot spots, and then often watching and waiting instead of unlimbering their guns, requiring infinite patience.

The World War II destroyers have grown old. Even though some new types appeared, including nuclear-powered, it seemed to many that once again the versatile destroyer might not be able to keep up with the new decade, the '70s, and its more complex technical and tactical problems.

However, in recent speeches, articles and press releases, top Navy leaders and policy makers have affirmed that the destroyer forces of the '70s will be even more versatile and powerful than before.

They will be quite comfortable compared to their forerunners. Unlike the four-pipers of World War I and the familiar Fletcher Class greyhounds of World War II, the new tin cans will be well appointed, air-conditioned, and have passageways running fore and aft, allowing sailors to walk without climbing over torpedo tubes on open decks while weathering a storm.

They will carry a variety of rockets and guided missiles, land helicopters, and counterattack other warships from supersonic jet aircraft and nuclear-powered undersea craft. They will still be rough riding in heavy seas and pack a punch far beyond what might be expected of their 450 feet in length.

The destroyer is still designed to move swiftly through the seas and fight any of several types of warfare. It is lean and packed with muscle from stem to stern. Armor has been sacrificed for speed.

At battle stations, every man aboard helps fight. Cooks and clerks become gun pointers and telephone talkers. Every sailor is a firefighter and is trained and expected to respond to any crisis with courage and expertise.

Whether it's dropping depth charges, launching guided missiles, bombarding a shoreline, picking up a downed pilot, or supporting Marines and soldiers, the modern destroyerman in his small but fast ship will be there . . . and the Admirals as well as the Nation can count on them.

Youth Physical

The Marine Corps Youth Physical Fitness Program for male high school students began in 1958 with a pilot program at a Long Island high school in New York City.

It was recognized by the President's Council on Physical Fitness on a national level in 1963. Because of its wide acceptance by the high school system, it was expanded in 1966 to include competitions from within the various Marine Corps districts. The district competitions culminate in the national finals held in Washington, D.C., each year.

This year some 1,300 high schools and over 350 students throughout the country participated in the Marine Corps Youth Physical Fitness Program.

The purpose of the program is to promote physical fitness among high school students by qualifying them for the Commandant of the Marine Corps' Certificate of Physical Achievement.

Individuals must score at least 250 points out of 500 to qualify for the certificate. Norms, derived through Marine Corps recruit performances in basic recruit training, are presented as a point scale based on absolute scores. The various events are based on a "physical fitness test" developed in 1956 by the Corps to test individual Marines.

Test events include a series of pull-ups, push-ups, sit-ups (performed in a two-minute time limit), a 300-yard run, and squat thrusts (performed in a one-minute time limit).

The sit-ups, test strength and endurance of abdominal muscles; push-ups, the same in extensor muscles of arms and shoulder girdle; squat thrusts, the leg muscles; pull-ups, the flexor muscles of the arms and shoulder girdle; and the 300-yard run tests speed and cardio-respiratory endurance.

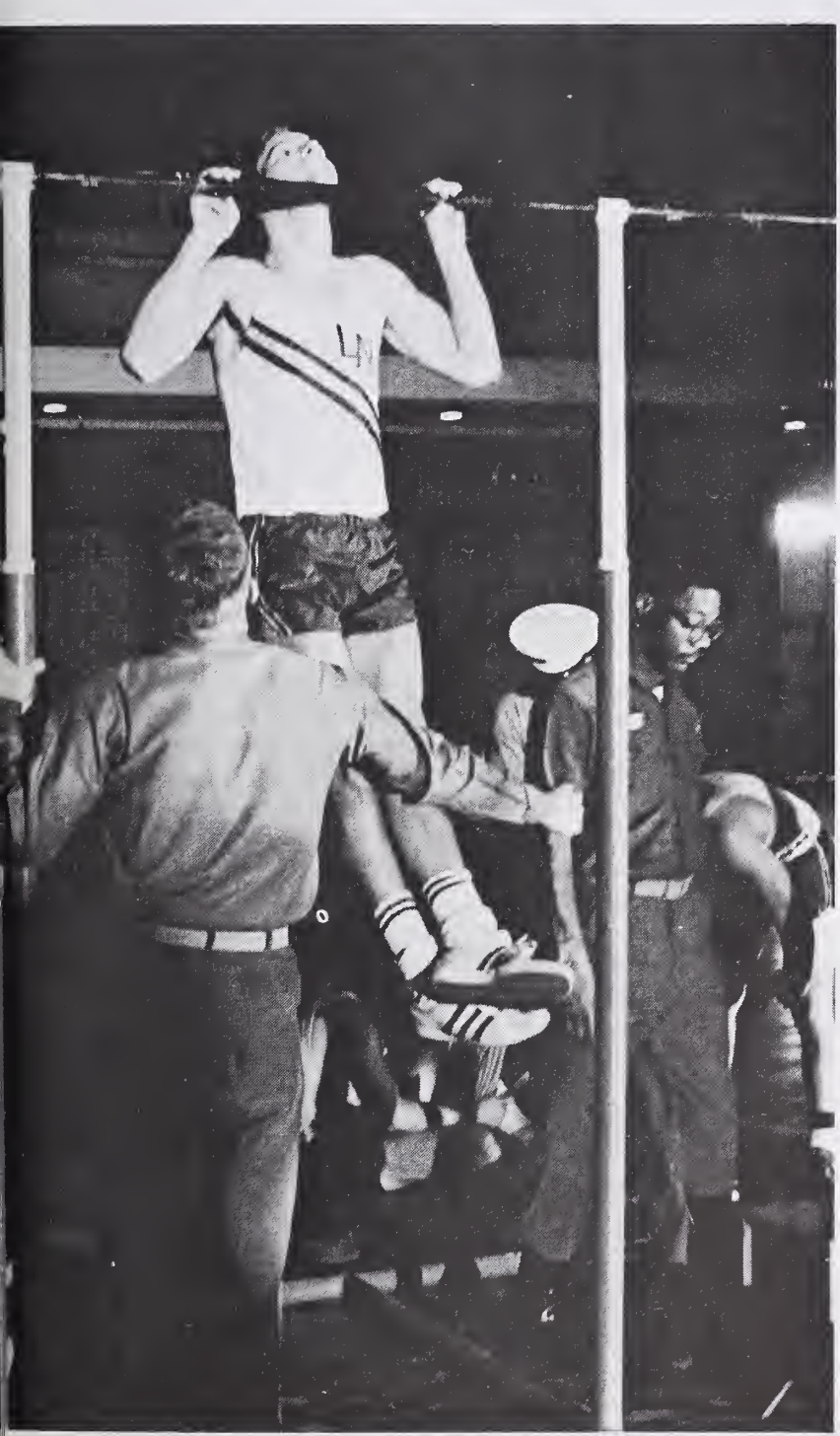
Jim Meisner,individual champion of the Marine Corps National Youth Physical Fitness Meet, is presented a scholarship by General Leonard F. Chapman,Jr., former Commandant of the Marine Corps.

The actual testing requires a minimum of equipment. Even the smallest of schools can vie on equal footing for selection to the national finals. The only equipment needed for the testing is a stop-watch, pencil and paper for scoring each individual, and a chinning bar for the pull-ups.

Marine Corps Recruiting Stations and local Marine Reserve units have available directions and norms for conducting the program, and provide assistance in establishing a fitness program at individual schools. Local testing however, is administered by school personnel.

The annual Marine Corps National Youth Physical Fitness Meet held in Washington, D.C., is an added incentive to the young man beyond the

Fitness Program



self-satisfaction and the chance to win a Physical Fitness Certificate.

To reach the National Meet, each high school participating in the program selects a six-man team; this team takes the test once more. The scores are forwarded to the Marine Corps District headquarters in which the school is located.

Each District is divided into two sections according to the number of schools and recruiting stations. District headquarters selects the top scoring team from each section to go to the National Meet. Only 12 teams, two from each district get to go.

The teams compete for national honors, team and individual awards, in addition to two scholarships and one cash award. The scholarships go to the top two seniors and the cash award goes to the winning school for the purchase of non-varsity athletic equipment.

Judging from the 72 contestants at the National Meet this year, the youth who excels in the fitness program stands five-foot-three to six-foot-two inches. He may weigh from 120 to 195 pounds. His jacket size is between a 32-short and a 44-long.

These figures show that the Marine Corps Youth Physical Fitness Program is a suitable area of competition for the "average" high school student.

Physical size does not give an advantage or disadvantage. Excellence in another sport does not seem to constitute an advantage in the program.

That these National competitors participate in, and often excel at a variety of other sports, proves that the primary requisite in becoming a Champion in Youth Physical Fitness is "determination and the will to win."

REFORGER

In 1968 the United States returned 35,000 Army and Air Force troops from Europe to alternate bases in the U.S., marking a major step in overseas troop reduction.

Efforts to reduce troop strength, while at the same time provide reassurance and reasonable proof that Western Europe can be defended effectively by American troops, has been accomplished through a "dual-base system."

Under the dual-base concept, approximately 11,000 troops of the 1st Infantry Division and other supporting units in the U.S. joined 16,000 European-based U.S. Army troops of the 3rd Brigade, 1st Infantry Division (Big Red One) permanently stationed at Augsburg, Germany. These combined forces form a full combat division.

In January 1969, REFORGER I gave the U.S. its first chance to return troops to Europe for training and in the process reemphasize our firm commitment to the defense of Western Europe.

OPERATION REFORGER is a NATO training exercise that annually involves the United States, the United Kingdom and the Federal Republic of Germany.

Last year during REFORGER II, 144 C-141 Lockheed Starlifter aircraft were used to transport troops and equipment. Although time was not a part of the test, they made the move in seven days, nine days faster than REFORGER I.

For added realism an aggressor force was formed to act as the enemy. These almost realistic enemy forces have their own uniforms, tactics, and combat role. The aggressor force will not only attack and harass REFORGER units, but they will take prisoners for interrogation and imprisonment. The individual soldier, here, can use his own ingenuity combined with his escape and evasion knowledge to free himself from the enemy.

The aggressor force used during the REFORGER exercise is comprised of the U.S. 3rd Infantry Division and the German 35th Panzer Grenadier Brigade.

The exercise is conducted in four phases. The first phase consists of arrival at one of the storage areas located at Mannhiem, Kaiserslautern, Karlsruhe or Germerseim. All heavy equipment remains at these storage areas and is issued during this phase.

Phase II is a five day field training exercise pitting the REFORGER force against the aggressor force. The highlight of REFORGER II was a coursing operation over the Main River near Dippach. The five day exercise is concluded at the U.S. military training area at Grafenwoehr.

Grafenwoer is the site of Phase III. In addition to having all the facilities of a stateside post it has an adequate firing range for tanks and artillery, ideal for conducting Phase III.

The fourth and final phase is the redeployment of forces and the return home.

On September 27, 1971, it was back to Germany to REFORGER III. As in the past the focus was placed on testing procedures and techniques for receiving, equipping, assembling and deploying of Army units upon arrival in the German Federal Republic, rather than on the rapid air transport of troops to and from the U.S.

Redeployed units drew equipment from their storage areas and began their exercise on October 11. This year Canada's 4th Mechanized Battle Group joined the 1st Infantry Division, in opposition to the 1st Armored

A medical Armored Personnel Carrier from the German 35th Panzer Brigade.

Division and the German 35th Panzer Brigade.

The exercise featured an "air-mobile assault" on key terrain followed by an armor link-up while U.S., Canadian and German planes provided air support for the maneuver.

After the exercise, REFORGER elements test fired artillery and main tank guns at Grafenwoehr.

Every year a Joint Visitors Bureau is organized to provide visitors and press representatives with maximum coverage of the exercise. Centers for the public's convenience are maintained at or near the areas of primary interest and escorts are provided.

The primary Visitors Bureau is located at Nuernberg throughout the exercise. Sub-centers are set up at the air bases and other areas of interest.

In addition to reducing troop strength and yet, defend Western Europe, REFORGER provides a meaningful and valuable tactical maneuver for the U.S. and its allies.

Boating Safety

"Coast Guard Station Cape May, Coast Guard Station Cape May, this is the boat Vagabond. . .I've had a fire aboard and am in trouble in heavy seas outside the inlet. . .will you send help, this is an emergency. . .over." "Vagabond, Vagabond, this is Coast Guard Cape May, assistance on the way, give me your exact position if possible, over." This type call from recreational boatmen occurs in varying degrees of emotion and danger more than 30,000 times a year in the United States.

When man removes himself from his natural habitat and ventures into the potentially hostile marine environment, he must thoroughly reorient himself by anticipating the hazards involved. He must become completely acquainted with saftey requirements and survival techniques. Each year, hundreds of thousands of commercial and pleasure boaters jeopardize lives and property by overlooking or disregarding written statutes and simple common sense while afloat.

Coast Guard statistics reveal that for the calendar year 1970, 4,762 vessels were involved in 3,803 recreational boating accidents. These accidents resulted in 1,418 deaths (almost four per day), 780 injuries and $8,173,000 in property damage; evidence indicates that these statistics are only a small percentage of the actual number.

The Coast Guard and the Coast Guard Auxiliary have the massive responsibility of instructing boaters in safety requirements and techniques, supervising the building and maintenance of certain vessels, enforcing safety laws on all waterways and aiding distressed craft of all sizes and nationalities.

The Chief of the Coast Guard's Office of Boating Safety, Rear Admiral A.C. Wagner, has commented, "The unfortunate number of fatalities of boatmen is the very basis for the existence of the Office of Boating Safety. Although the accident and injury rates were lower last year, deaths and property damage increased."

What then is the Coast Guard doing? In unending attempts to lower the accident and death rate afloat, the Coast Guard has moved ahead in many new areas. Color films, boating safety exhibits (for use at boat shows, shopping centers and fairs), T.V. spot announcements and radio air time are some of the newer areas into which the Coast Guard has undertaken in order to drive home the importance of boating safety.

In addition, boating safety publications can be acquired by anyone. Emergency Repairs Afloat, Pleasure Craft, Recreational Boating Guide, Boating Statistics and Overloading and Improper Loading can be obtained by writing the Commandant (BD-2), U.S. Coast Guard, 400 7th St. SW, Washington, D.C. 20591.

Boater education is of primary im-

portance as a factor in preventing tragedies on the water. Education must go hand in hand with law enforcement if our waterways are to be made safe for all. During 1970, Coast Guard Safety Patrols boarded 19,296 vessels and issued 10,493 violation notices. The patrols gave 5,707 written warnings to negligent boaters.

Safety Patrol boarding parties are comprised of Coast Guardmen who have attended one of the four Boating Safety Instructors Schools. Their job is two-fold. They must police most of America's waterways and board any craft suspected of or actually breaking the law through wrecklessness, improper loading, faulty registration or other violation of regulations. The second and most important part of their job is to come to the aid of water sportsmen in distress and assist during natural disasters.

The Federal Government is presently working on a bill which will give the Coast Guard more latitude in the areas of restriction and requirement concerning pleasure craft construction and operation. Under the provisions of the Federal Boat Safety Act of 1971, the manufacturers of pleasure craft have the responsibility of meeting new safety requirements. The Coast Guard and Coast Guard Auxiliary will not inspect personally owned vessels with any more scrutiny than they have in the past, but will critically test boats and related equipment against established criteria to detect possible violations.

It is essential that the Coast Guard's boater education, law enforcement, vessel preventive maintenance checks, and search and rescue measures be combined with increasing competence if the death and accident rate afloat is to be reduced.

Whether by law or through voluntary education or experience, it is essential that boaters realize the hazards involved in water-borne recreation. If simple precautions are taken before venturing out and boating safety strictly exercised, there will be only anxious anticipation for the next enjoyable outing. Nor will there be a cause for a distress call to the Coast Guard or the tragic regret that follows a needless boating accident.

A Coast Guard Boarding Officer inspects equipment and identification labels.

MARINE CORPS JROTC

Since World War I, Army Junior Reserve Officer Training Corps' have linked the attributes of military training with civilian schooling. In 1964, Congress viewing its success, recognized the value of such an organization. This recognition swayed it to pass the Reserve Officer Training Corps Vitalization Act.

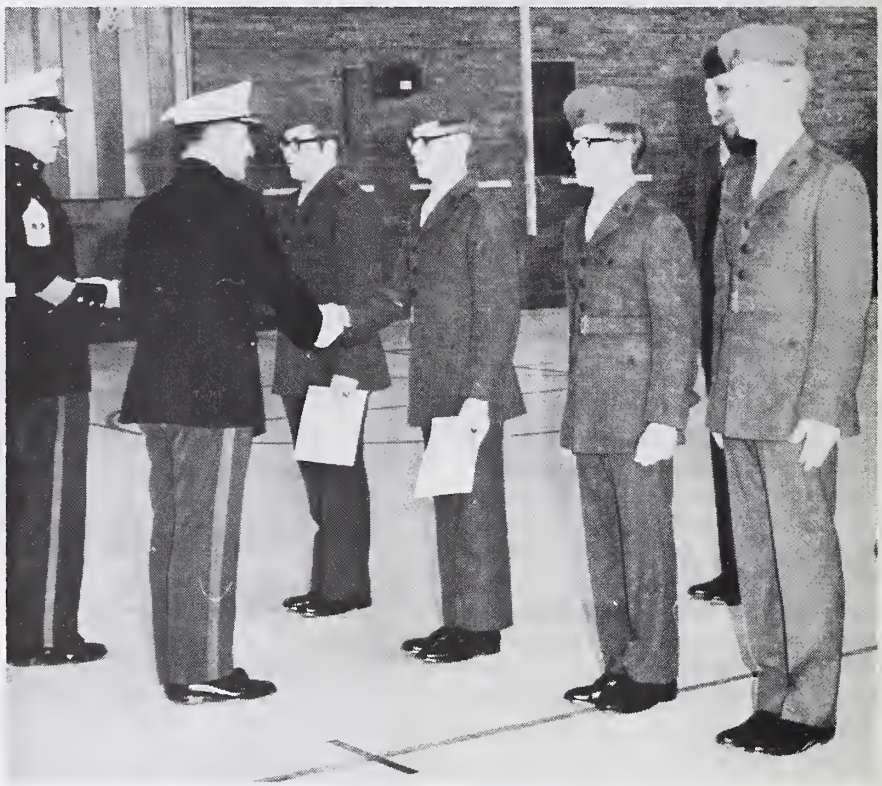
This act authorized the individual Armed Service Secretaries to commission JROTC units in secondary schools that met basic requirements. The Navy, in particular, authorized the Commandant of the Marine Corps to establish 30 Marine units throughout the U.S.

The first Marine Corps JROTC unit was commissioned in May 1966 at Jesuit High School, New Orleans. By September 1968, nearly three thousand high school students were active in the program, at 17 different units. As of June 1971, there were 28 such units actively organized in non-military public and private high schools and in military schools.

Under the Marine Corps JROTC programs, high school students are taught good citizenship, patriotism, self-reliance leadership, responsiveness to authority, the knowledge of basic military skills and an appreciation for the traditions of the United States Marine Corps.

The JROTC curriculum in public and private high schools can be offered either as a three or four-year course. This curriculum may be offered as an elective, or as a required course at the discretion of school officials.

In military school, classes operate under military standards similar to the service academies. And, like military academies, students wear uniforms to all classes and are under constant military-type discipline.



Opportunities are open for the cadets to participate in other military based activities, such as drill and rifle teams, bands, social events and field trips.

Cadets in the JROTC program are encouraged to participate in sports and in the nationwide Marine Corps' Youth Physical Fitness Program.

JROTC cadets receive first class instruction by retired Marine officers and staff noncommissioned officers, serving as JROTC instructors. They are retired Marines with at least 20 years honorable active duty and are approved by Headquarters, U.S. Marine Corps.

Eventhough, JROTC instruction is maintained by Marine Corps standards, the school sets the qualifications and employment policies not the Marine Corps. But, since the instructors are employees of the school, they are directly responsible to the school for the conduct of the JROTC programs.

Participation in the Junior Reserve Officer Training Corps provides a wholesome backbone to strengthen each cadet's character and prepare him to meet his obligations in today's society. The program instills in each cadet a distinct pride in the Corps, his country, and moreover himself. The participation of a young cadet in this program does not in anyway obligate him for future military service.

SECONDARY SCHOOLS PARTICIPATING IN THE MCJROTC PROGRAM

1st Marine Corps District

Johnston High School,
Johnston, Rhode Island
Newfield High School,
Centerreach, New York

4th Marine Corps District

Seneca High School,
Louisville, Kentucky
Churchland High School,
Portsmouth, Virginia

6th Marine Corps District

George P. Butler High School,
Augusta, Georgia
Grimsley High School,
Greensboro, North Carolina
Jefferson Davis High School,
Montgomery, Alabama
Rule Junior-Senior High School,
Knoxville, Tennessee
Venice Senior High School,
Venice, Florida

8th Marine Corps District

Catholic High School,
Little Rock, Arkansas
Jesuit High School,
New Orleans, Louisiana
Marine Military Academy,
Harlingen, Texas
Nicholas Blackwell High School,
Bartlett, Tennessee
Pasadena High School,
Pasadena, Texas
Rio Grande High School,
Alburquerque, New Mexico

9th Marine Corps District

Adams City High School,
Adams City, Colorado
Portage Township High School,
Portage, Indiana
St. Francis High School,
Wheaton, Illinois

12th Marine Corps District

Barstow High School,
Barstow, California
John F. Kennedy High School,
Barstow, California
Tolleson Union High School,
Tolleson, Arizona
Blackford High School,
San Jose, California
Campbell Union High School,
Campbell, California
Oceanside-Carlsbad Union High School,
Oceanside, California
Prospect High School,
Sarasoga, California
Snohomish High School,
Snohomish, Washington
Phoenix Indian High School,
Phoenix, Arizona
El Rancho High School
Pico Rivera, California

☆ U.S. GOVERNMENT PRINTING OFFICE: 1972—754-084/S

UNIVERSITY OF FLORIDA
3 1262 09683 2794

FLARE